

the attention of the members of the medical profession to this department of our library, in the hope that sooner or later some of them may become interested in this fascinating subject. In conclusion I will quote from Dr. Seidel's vademecum the words with which he closes his manuscript:

Vivat, floreat, crescat in aeternum Universitas  
Litterarum Pacifica! Q D M O bene vertat!

**Goiter in the Intermountain Region of Utah**—The larger phase of the goiter problem, and the one that may prove to be most significant in the future, George W. Middleton, Salt Lake City (Journal A. M. A.), says is the relative iodine deficiency in the various geological strata that form the catchment basins and water-sheds of the streams. If this were determined in any given section, one could at a glance estimate the probable goiter incidence and the extent of prophylactic measures necessary to meet the situation. Theoretically, all volcanic or granitic sections of country should have a relatively large percentage of goiter incidence. Whether this is the case or not remains to be proved, but in the data available in the intermountain region of Utah there is at least a marked indication in that direction. Thus, in the town of St. George, in southern Utah, with a population of more than 3000, goiter was quite unusual for more than half a century, from the time of its founding until a water system was installed and the water from Pine Valley Mountains brought in. Pine Valley Mountains are almost entirely igneous, and the volatile iodine no doubt escaped at the time of their extrusion. Since the advent of the new water supply, many people have developed goiter, and what was for a long time a comparatively immune district has now been added to the large endemic section of southern Utah. In the Virgin Valley, which is a part of this section, fully 75 per cent of the adult women have goiter. It is here, in these isolated mountain gorges, that one encounters enormous thyroid growths, which are allowed to progress unchallenged until they assume maximal dimensions. It seems to be well established by the statewide survey now in progress that towns which enjoyed considerable immunity from goiter while they used well water, and water from the surface springs, are taking on a marked increase of goiter incidence since they installed water systems, and are getting their water supply from mountain springs up near the melting snows. During the last three years Middleton has treated 333 cases of the various forms of goiter, not including hypothyroidism or the inflammatory conditions. One hundred and fifty-six thyroidectomies were performed with two fatalities, a mortality of 1.3 per cent. Seventy-three per cent of these patients were toxic, and many of them extremely toxic. One of these fatalities was due to tracheal obstruction, and one patient was so toxic that she showed no improvement after months of rest and medical treatment, and thyroidectomy was undertaken as a last resort. Middleton believes that rest in bed with abundance of fluids, and the use of compound solution of iodine in the hyperplastic cases, are the most important preparatory measures. Except in cases with broken compensation, pre-operative digitalization has been of little value. Calcium carbonate is given to prevent tetany. The condition described as hypoglycemia has been encountered five or six times. Urinalysis showed much acetone and diacetic acid. The relief from intravenous glucose was striking.

#### Do You Know—

That insanity, epilepsy, "nervous prostration," feeble-mindedness and criminalistic tendencies are inherited?

That virtue, intelligence, beauty, social capacity, capacity to succeed in life, capacity to make money, tendencies to become a church-goer, tendencies to become a good housekeeper or a good father or mother are all largely matters of heredity?

That most popular ideas about "prenatal influence" are complete bunk?—A. E. Wiggam.

## THE HISTORY OF THE DEVELOPMENT OF WOMEN IN MEDICINE IN CALIFORNIA

By ADELAIDE BROWN, M. D., *San Francisco*

THE history of the development of women in medicine in California covers a period of fifty years if one begins with the professional women who continued in active practice for more than twenty-five years.

The opportunity for medical study was refused to women in California as long as the medical schools were owned privately, but as soon as the Toland Medical School was given to the University of California to become its medical department, as co-education was the policy of the University, the medical school accepted Dr. Lucy M. F. Wanzer\* as its first woman student. Dr. Wanzer graduated in 1876. Very soon the College of the Pacific, later Cooper Medical College, removed its restrictions and Alice Higgins graduated in 1877 and Anabel McG. Stuart in 1878. Dr. Stuart practiced in Santa Rosa for about forty years. Thus barriers fell.

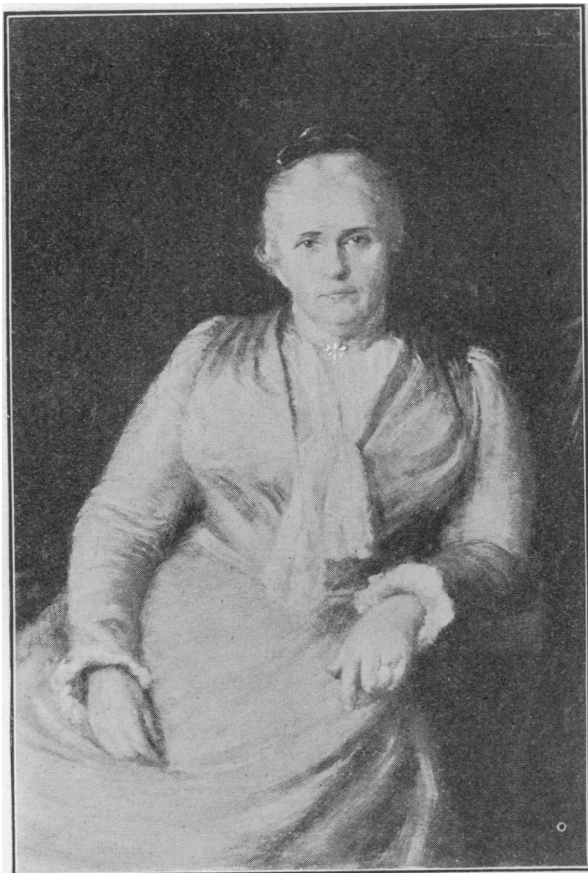
But attaining a medical education was by no means impossible to a Californian inspired to work in this line. In 1872 Charlotte Blake Brown left her home in Napa, California, and graduated at the Woman's Medical College in 1874 in Philadelphia. Dr. Brown spent her senior year as a hospital intern to gain practical training and returned to California to begin practice in San Francisco, imbued with the importance of hospital experience to both graduates and medical students.

The Pacific Dispensary for Women and Children, renamed and incorporated in 1885 as the Children's Hospital and Training School for Nurses, was founded in 1875 and was the finite expression of this ideal. Associated with Dr. Brown in the pioneer years of this work were Dr. Martha Bucknall and Dr. Sarah E. Browne. They called on seventy women to gain the names of eight for the first Board of Lady Managers. In 1880 the Training School for Nurses was established, the first on this western coast, and was again a practical expression of the deep interest in the welfare of the individual patient which was characteristic of the early women physicians.

Charlotte Amanda Blake Brown was born in Philadelphia in 1846, where her father, a Bowdoin College graduate, and later a minister, had a boys' private school. Her father came to California in 1850, where he established a boys' school in Benicia. His wife and family followed in 1851. They crossed the Isthmus carried by Indians and lived in California three years. Then the father was called to Chili as a preacher to Cornish miners and the family lived there four years. En route they were blown out of their course and visited Tahiti. These years in the Southern Hemisphere, associated with an interest through life in the work of Missions, gave Dr. Brown a remarkable international sympathy. She did medical work through her life for the Chinese women in the Missions in San Francisco and for the American Board of Foreign Missions by caring

\* (A complete Life of Dr. Wanzer is given by Dr. Emma Sutro Merritt, as a contribution to this historical number.)

for returning missionaries and their families. After returning to New England she graduated, at 20, from Elmira College, New York, one of the earliest colleges to grant degrees to women. She came to Arizona with her father and mother, where her father had been ordered as chaplain with his regiment at the close of the Civil War. There she met Henry Adams Brown of Riverside, Maine, and was married in 1867. The young couple crossed the desert with a troop of soldiers at a time when Indian raids were common and ruthless and white men said to a woman, "The first bullet will be for you if we are attacked." The young couple settled in Napa, California, where after the birth of her second child she read anatomy seriously with her preceptor, Dr. Charles (?) Nichols. For their faith in her ambitions enough can not be said for the co-operation of her husband and parents. She lived not only to lay the foundation and see the structure (other than bricks and mortar) rise of a great hospital, but to give to a home and three children every opportunity a sympathetic, intelligent and far-seeing educated woman has in her power to give home and children.



Charlotte Blake Brown.

Another woman physician always rises before me as I think of the early women in medicine, the creative women physicians they were.

Elizabeth A. Follansbee was a friend of Charlotte Blake Brown's in Napa, then working as a teacher in the Napa Seminary for Girls. Dr. Follansbee was born in Dorchester, Mass., was the daughter of a prosperous sea captain and was taken to Paris for

her education. She was a woman of delicate health, great grace and charm of manner and of the most refined taste and ideals. She followed Dr. Brown to Philadelphia, though she matriculated at the Medical School of the University of California. After graduation, in 1877, she was associated with Dr. Brown in work in the Children's Hospital. Dr. Follansbee was obliged, on account of her health, to seek a warmer climate and settled in Los Angeles in the early eighties. There her personal qualities won her the friendship of the leaders in medicine and she was asked to take the Chair of Pediatrics in the Los Angeles Medical Department of the University of California, which she held until the school was closed.

Dr. Follansbee was a friendly critic of her women students and a recommendation by her of a candidate for internship in the Children's Hospital meant much more than scholarly attainment. She was a devoted friend to her patients; of herself she thought least of all. She was never rich in this world's goods, always too busy to keep books and too unselfish to send the bill if she suspected it would be difficult to meet. She was an idealist and held the torch high. Her students had the art of knowing and considering their patients thoroughly presented to them.

C. Annette Buckel, who came to California and settled in Oakland in 1877, brought to her chosen work the richest of human experience. She was born in western New York State in 1833; an orphan at 6 months, she was brought up by her grandparents. She taught, to earn the money to go to the Woman's Medical College in Philadelphia, where she graduated in 1858. She was associated with Dr. Elizabeth and Emily Blackwell in New York, the pioneer women physicians in the United States. She later went to Chicago, where she started practice. In 1863 she was commissioned by Governor Morton of Indiana to go South, to be responsible for Indiana's soldiers in hospitals along the Mississippi. She was the head of an army nursing service. It has been most interesting to read over passes signed by General Grant and General Graham, letters of instruction of which this is an example: "The appointment of female nurses by the surgeon in charge of general hospitals upon the recommendation of Miss Buckel will be confirmed by this office." Signed "I. M. Barnes, Acting Surgeon-General." This order followed in two days, a letter from Dr. Buckel suggesting "that at one general hospital, Jeffersonville, selected nurses could be trained and passed on to other hospitals, thus avoiding the annoyance given surgeons by the continued applications for situations by women stragglers and securing more valuable assistants in hospital nursing."

From army experience Dr. Buckel went to Boston, where she was associated with Dr. Marie Zakrzewska in the New England Hospital for twelve years, and then after two years' study in Paris and Vienna she came to California. Dr. Buckel was eminently a citizen of the community in which she lived. She was interested in and contributed to the scientific life of Oakland and was one of the founders of the Home Club, under whose auspices and largely through her inspiration certified milk became possible in California.

She was always interested in child nurture and at her death in 1912 she left her property to be used for a fellowship in child psychology, especially the study of the feeble-minded children. This legacy was accepted by Stanford University and has been used steadily in this field of work. Several of our state institutions have profited by the work of students who were Fellows of the C. Annette Buckel Foundation, Stanford. Dr. Buckel was always the center of an intellectual group, progressive in the highest sense of the word. Her personal experience has been broad and hers was a lovely exterior, a dignified, beautiful woman, generous, kind and able in her professional work. Her home circle often contained those she was re-educating to live, with the infinite patience this work needs.

These three women in medicine were lifelong friends and an inspiration to each other. Together they created a standard for intellectual and professional attainment that left little for the women who came after them to add.

The adoring eyes of the child focus themselves on the mother-doctor. After twenty years the adult sees in the professional career of that mother a life characterized by undaunted courage, glorious optimism before which difficulties vanish as does our fog before the sun, and a clear vision of the future for women united with a love of her kind. Medicine offered her the great opportunity for self-expression. Dr. Henry Gibbons Jr. wrote at the time of her death in 1904: "To few souls has it been given to live to see the attainment, personally and professionally, of their heart's dearest wishes."

In retrospect, these pioneer women physicians were of noble pattern. Each one brought to her work unusual qualities and experience and freely gave in her professional life.

In the next group of women physicians extending to today, I have selected those who stand out as creating new fields of activity for women and milestones, therefore, in any history of women in medicine in California.

Dr. Mary B. Ritter (Cooper Medical School, 1886) served as the first woman physician and lecturer to women students at our State University. Today the work requires the services of several women physicians and there is no college, normal or high school but retains if possible a woman physician for the care and instructing of women students.

Public health in executive and laboratory fields has had the services of California women in national and state positions.

Anesthetics as a specialty for women physicians attracted Mary E. Botsford (Medical Department, University of California, 1896), and her skill and generous patience have given the necessary training to many women as well as men who followed this line of work.

Pediatrics early attracted women physicians in California; as service to sick children, they created the Children's Hospital; as service to keep children well, the establishment of certified milk and the well baby centers attest their interest in the community. Dr. Emma Sutro Merritt, on her return from Paris in 1887, was at the head of the Department of Surgical Pediatrics in the Children's Hospital, where she continued until extensive business responsibilities compelled her to resign her medical work.

Surgery has been a field where success has been attained by a considerable number of women. The opportunity to operate was given at the Children's Hospital and early, the light hand, the detailed after-care, the careful consideration of the environment and life-strain of the patient and the sustained after-interest in the convalescent made for successful results at the hands of women surgeons.

Competition is closer and perhaps the burden of proof heavier in this particular field, but the reputation and success attained by Dr. Charlotte Blake Brown and Dr. Florence Saltonstall Ward in San Francisco and by Dr. Rose Bullard in Los Angeles show that they had progressed far, from the days when a leading surgeon said to the pioneer woman surgeon: "Perhaps you will be *allowed* to operate on poor patients, but you had better send your pay patients to me."

Obstetrics has always been a field where all women physicians have given steady service. In the new development of the hospitalization of obstetrical cases in San Francisco, the Alexander Maternity of the Children's Hospital was the pioneer in the field. The donor, Mrs. Charles B. Alexander, desired to offer to self-supporting families of moderate means the nursing care and protection of a hospital at reasonable rates. This house service has developed both leadership in the consultants responsible for it and has given excellent educational experience to the interns who conduct all normal house cases.

Dr. Edna Field (Cooper Medical College, 1883) developed this work.

Prenatal care, breast-feeding and post-natal examinations were cornerstones of this obstetrical service always. A careful analysis of indications based on a study of each case antedated all operative obstetrics.

Thus, the development of women in medicine in California centers about the development of their medical center at the Children's Hospital. Opportunity was thus early given them to meet and to learn to meet responsibility in medicine. The interns were always women. For many years the Children's Hospital gave the only opportunity in the West for an internship for women. Then, as competitive examination won appointments, women students came into their own, and here in California in recent years rank attained as students has placed women as interns in the University of California and Stanford hospitals; while the Children's Hospital has drawn from other institutions stretching from the universities of Edinburgh, Liverpool, Johns Hopkins, to Oregon and British Columbia. Ten or twelve interns annually take the rotating service and go out to medical work throughout the United States and in the mission fields of India, China, and Persia.

The spirit of shouldering responsibility was paramount in the women of the first forty years in medicine; each one was in the position, practically, of the country doctor who simply had to make good for every case. Each woman felt not only the urge to care for her patient well, but to score for women in medicine.

In the last decade women physicians have taken positions in the California medical schools of various

teaching ranks. Quality and sincerity in work and an endowment as a teacher are requirements. Obstetrics, gynecology, pediatrics, and neuro-psychiatry are the fields of teaching covered.

Two groups of women physicians deserve special words. The group who have added to the profession of wife and mother, an active life in the medical profession. It is no doubt a taxing combination and means a mentality that can evaluate and choose, and also an atmosphere at home, sympathetic to the effort. But that it *can* be done, the homes, children, and professional success of many women physicians in California go to prove.

The second group contains the devoted followers of general practice, the family doctors who follow the lives of the family groups from birth through childhood, adolescence, and maturity, and start out a new generation in turn. In this group most of the women physicians of the first four decades in California have functioned. As rural and urban physicians with a personal understanding and interest in the individual problems of their patients, they may in the future fill the demand as yet unanswered for the general practitioner.

No history of the development of women in medicine in California would be just or complete without a word of recognition and appreciation of the steady, helpful co-operation and sympathy given individually and collectively to women physicians by our brothers in the profession. At the time when women first applied and were excluded by the San Francisco County Medical Society and caricatured as "Carrie Nations" in the News Letter of that week, Dr. Samuel Morse, rising from a sick-bed, proposed, and Dr. Henry Gibbons Sr. endorsed, their names. Such men were heroes.

That year the women were admitted to the State Society, and the San Francisco County Society later admitted Dr. Lucy M. F. Wanzer, and thus the ice was broken.

The names of Dr. Samuel F. Morse, Dr. Henry Gibbons Sr., Dr. Henry Gibbons Jr., Dr. Levi C. Lane, Dr. Geo. Chismore, Dr. Chas. E. Blake, Dr. L. L. Dorr, Dr. Douglass Montgomery, Dr. Harry M. Sherman, Dr. John F. Morse, and Dr. C. A. Von Hoffman stand out as helpful friends of women in medicine at a time when it took courage to announce such a position. As consultants and members of the staff of the Children's Hospital, they gave support and endorsement to the work of women.

To the second fifty years of women in medicine in California is given the privilege of "carrying on." The profession has made marvelous advances; a college degree is today a prerequisite to the study of medicine with a very specific preliminary requirement as well. An internship is included in California before the degree Doctor of Medicine is granted.

The younger group begin where we leave off, but pioneer women physicians have set a marvelous standard in creative work and, in the spirit of service to suffering humanity, not easily surpassed. The early women physicians not only blazed a trail, but, well equipped educationally and in life experience, they made it a goodly highway easier of transit for every woman who follows, for their attainments.

909 Hyde Street.

## SOME CORRESPONDENCE RELATING TO THE INTRODUCTION OF VACCINATION INTO AMERICA

By WALTER C. ALVAREZ, M. D., *San Francisco*

SEVERAL years ago while rummaging in an old book store in New York I picked up, off of a pile of rubbish being swept up for the furnace, an old correspondence-box which had attracted my attention. On opening it, what was my delight to find a letter from Jenner dealing with one of the first shipments of vaccine to Benjamin Waterhouse in America; two long letters from Waterhouse in regard to this vaccine; a letter from Dr. Holyoke; lecture cards from three professors at Harvard Medical School in 1798-1801, and the diary and notes of a young medical student by the name of Matthias Spalding. This young man had been a student in Waterhouse's office and at Harvard, and had then gone to England for post-graduate study. Unfortunately for us, he was not much of a diarist and his entries too often are short and perfunctory and of the "Got up, washed and went to bed" variety. The one incident of the day which seems always to have interested him, judging by the fact that he seldom omitted reference to it, was—his dinner! Such as it is, however, it gives us interesting glimpses of the life of a medical student in the London of that time.

He arrived on May 18, 1801, and observed that "It was a noisy and disagreeable place." After a walk around the city, he could see that "The people looked and acted pretty much like other folks—all appeared to love money." The next day he "Dined with old Mr. Bainbridge and toasted the King, Queen and Royal family, Mr. Gray, George Long and Earl St. Vensen; had tea at 8 o'clock; then rose from the table and staggered home." Later he apparently did not feel so proud of this exploit, because we find "staggered" crossed out and "went" written above it!

On May 30 we find this *medical* student attending lectures on bleaching silk, on agriculture, the physiology of plants, astronomy, etc. On June 9 he writes: "Attended Mr. Garnett's lecture on the physiology of plants, but during the lecture attended more to the physiognomy of animals, for directly opposite me was a most beautiful young lady. She had an enchanting smile—her eyes sparkled like fire and I, or my eyes, could not help catching the flame. I was attentively engaged, but lost my lecture." Apparently his affections had not yet been put in cold storage, where Dr. Osler believed those of the medical student should be.

A good bit of medical psychology is found in his notes on a visit to the inoculating hospital in London. He says: "When inoculated, Woodville gave these children 5 gr. of Rhei and ordered 5 gr. more to be taken in about a week, *principally to quiet the parents.*" (*Italics mine.*) "He seldom tells the patient whether it be smallpox or cowpox, as many of them still have some prejudices respecting the matter."

After he had had a good look at the sights of London he made his pilgrimage to Cheltenham, where Jenner had him to dinner several times and